

## SEQUENCE LISTING

<110> TOOLGEN, INC.

## <120> REGULATION OF PROKARYOTIC GENE EXPRESSION WITH ZINC FINGER PROTEINS

<130> PCA41174-TGI

<150> US 60/532,362

<151> 2003-12-23

<160> 157

<170> FastSEQ for Windows Version 4.0

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<213> Homo sapiens

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Thr Arg His Gln Arg Ile His  
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<213> Homo sapiens
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<213> Homo sapiens

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<213> Homo sapiens

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Thr Arg His Arg Arg Ile His  
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<213> Homo sapiens

<400> 9  
Tyr Glu Cys Asn Tyr Cys Gly Lys Thr Phe Ser Val Ser Ser Thr Leu  
1 5 10 15  
Ile Arg His Gln Arg Ile His  
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<213> Homo sapiens

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Asn Val His Lys Arg Thr His  
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<212> PRT  
<213> Homo sapiens

<400> 11  
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1 5 10 15  
Asn Val His Arg Arg Ile His  
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<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 12  
Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Thr Gln Ser Ser Asn Leu  
1 5 10 15  
Thr Lys His Lys Lys Ile His  
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<210> 13  
<211> 23  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 13

Phe Gln Cys Lys Thr Cys Gln Arg Lys Phe Ser Arg Ser Asp His Leu  
1 5 10 15  
Lys Thr His Thr Arg Thr His  
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&lt;210&gt; 14

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 14

Tyr Glu Cys Asp His Cys Gly Lys Ser Phe Ser Gln Ser Ser His Leu  
1 5 10 15  
Asn Val His Lys Arg Thr His  
20

&lt;210&gt; 15

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 15

Tyr Glu Cys His Asp Cys Gly Lys Ser Phe Arg Gln Ser Thr His Leu  
1 5 10 15  
Thr Arg His Arg Arg Ile His  
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&lt;210&gt; 16

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 16

Tyr Lys Cys Pro Asp Cys Gly Lys Ser Phe Ser Gln Ser Ser Ser Leu  
1 5 10 15  
Ile Arg His Gln Arg Thr His  
20

&lt;210&gt; 17

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 17

Tyr Arg Cys Glu Glu Cys Gly Lys Ala Phe Arg Trp Pro Ser Asn Leu  
1 5 10 15  
Thr Arg His Lys Arg Ile His  
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&lt;210&gt; 18

&lt;211&gt; 23



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<213> Homo sapiens

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<210> 24  
<211> 23  
<212> PRT  
<213> Homo sapiens

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1 5 10 15  
Lys Thr His Thr Arg Thr His  
20

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<213> Homo sapiens

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Asn Val His Lys Arg Thr His  
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<212> PRT  
<213> Homo sapiens

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Thr Arg His Arg Arg Ile His  
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<212> PRT  
<213> Homo sapiens

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1 5 10 15  
Thr Gln His Arg Arg Ile His  
20

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<212> PRT  
<213> Homo sapiens

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Tyr Lys Cys Met Glu Cys Gly Lys Ala Phe Asn Arg Arg Ser His Leu  
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Thr Arg His Gln Arg Ile His  
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<210> 29  
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<213> Homo sapiens

<400> 29  
Tyr Glu Cys His Asp Cys Gly Lys Ser Phe Arg Gln Ser Thr His Leu  
1 5 10 15  
Thr Arg His Arg Arg Ile His  
20

<210> 30  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 30  
Tyr Glu Cys Asp His Cys Gly Lys Ser Phe Ser Gln Ser Ser His Leu  
1 5 10 15  
Asn Val His Lys Arg Thr His  
20

<210> 31  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 31  
Tyr Glu Cys Asp His Cys Gly Lys Ala Phe Ser Val Ser Ser Asn Leu  
1 5 10 15  
Asn Val His Arg Arg Ile His  
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<210> 32  
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<212> PRT  
<213> Homo sapiens

&lt;400&gt; 32

Phe Glu Cys Lys Asp Cys Gly Lys Ala Phe Ile Gln Lys Ser Asn Leu  
1 5 10 15  
Ile Arg His Gln Arg Thr His  
20

&lt;210&gt; 33

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 33

Tyr Lys Cys Lys Gln Cys Gly Lys Ala Phe Gly Cys Pro Ser Asn Leu  
1 5 10 15  
Arg Arg His Gly Arg Thr His  
20

&lt;210&gt; 34

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 34

Tyr Glu Cys Asp His Cys Gly Lys Ala Phe Ser Val Ser Ser Asn Leu  
1 5 10 15  
Asn Val His Arg Arg Ile His  
20

&lt;210&gt; 35

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 35

Tyr Glu Cys His Asp Cys Gly Lys Ser Phe Arg Gln Ser Thr His Leu  
1 5 10 15  
Thr Arg His Arg Arg Ile His  
20

&lt;210&gt; 36

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 36

Tyr Lys Cys Pro Asp Cys Gly Lys Ser Phe Ser Gln Ser Ser Ser Leu  
1 5 10 15  
Ile Arg His Gln Arg Thr His  
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&lt;210&gt; 37



<211> 23  
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<400> 37  
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1 5 10 15  
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<210> 38  
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<212> PRT  
<213> Homo sapiens

<400> 38  
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<210> 39  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 39  
Tyr Glu Cys His Asp Cys Gly Lys Ser Phe Arg Gln Ser Thr His Leu  
1 5 10 15  
Thr Arg His Arg Arg Ile His  
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<213> Homo sapiens

<400> 40  
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1 5 10 15  
Ile Arg His Gln Arg Thr His  
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<210> 41  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 41  
Phe Gln Cys Lys Thr Cys Gln Arg Lys Phe Ser Arg Ser Asp His Leu  
1 5 10 15  
Lys Thr His Thr Arg Thr His

20

&lt;210&gt; 42

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 42

Tyr	Lys	Cys	Glu	Glu	Cys	Gly	Lys	Ala	Phe	Thr	Gln	Ser	Ser	Asn	Leu
1				5					10					15	
Thr	Lys	His	Lys	Lys	Ile	His									
				20											

&lt;210&gt; 43

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 43

Tyr	Glu	Cys	His	Asp	Cys	Gly	Lys	Ser	Phe	Arg	Gln	Ser	Thr	His	Leu
1				5					10					15	
Thr	Arg	His	Arg	Arg	Ile	His									
				20											

&lt;210&gt; 44

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetically generated peptide

&lt;400&gt; 44

Tyr	Lys	Cys	Met	Glu	Cys	Gly	Lys	Ala	Phe	Asn	Arg	Arg	Ser	His	Leu
1				5					10					15	
Thr	Arg	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Phe	Lys	Cys	Pro
			20				25					30			
Val	Cys	Gly	Lys	Ala	Phe	Arg	His	Ser	Ser	Ser	Leu	Val	Arg	His	Gln
		35				40					45				
Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Arg	Cys	Lys	Tyr	Cys	Asp	Arg
	50				55				60						
Ser	Phe	Ser	Ile	Ser	Ser	Asn	Leu	Gln	Arg	His	Val	Arg	Asn	Ile	His
65				70					75					80	

&lt;210&gt; 45

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetically generated peptide

&lt;400&gt; 45

```

Tyr Thr Cys Ser Tyr Cys Gly Lys Ser Phe Thr Gln Ser Asn Thr Leu
 1           5           10           15
Lys Gln His Thr Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Lys
          20           25           30
Gln Cys Gly Lys Ala Phe Gly Cys Pro Ser Asn Leu Arg Arg His Gly
          35           40           45
Arg Thr His Thr Gly Glu Lys Pro Tyr Arg Cys Lys Tyr Cys Asp Arg
          50           55           60
Ser Phe Ser Ile Ser Ser Asn Leu Gln Arg His Val Arg Asn Ile His
65           70           75           80

```

&lt;210&gt; 46

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetically generated peptide

&lt;400&gt; 46

```

Tyr Arg Cys Lys Tyr Cys Asp Arg Ser Phe Ser Ile Ser Ser Asn Leu
 1           5           10           15
Gln Arg His Val Arg Asn Ile His Thr Gly Glu Lys Pro Phe Gln Cys
          20           25           30
Lys Thr Cys Gln Arg Lys Phe Ser Arg Ser Asp His Leu Lys Thr His
          35           40           45
Thr Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys His Asp Cys Gly
          50           55           60
Lys Ser Phe Arg Gln Ser Thr His Leu Thr Arg His Arg Arg Ile His
65           70           75           80
Thr Gly Glu Lys Pro Tyr Glu Cys Asn Tyr Cys Gly Lys Thr Phe Ser
          85           90           95
Val Ser Ser Thr Leu Ile Arg His Gln Arg Ile His
          100          105

```

&lt;210&gt; 47

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetically generated peptide

&lt;400&gt; 47

```

Tyr Glu Cys Asp His Cys Gly Lys Ser Phe Ser Gln Ser Ser His Leu
 1           5           10           15
Asn Val His Lys Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Asp
          20           25           30
His Cys Gly Lys Ala Phe Ser Val Ser Ser Asn Leu Asn Val His Arg
          35           40           45
Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Lys

```

```

      50              55              60
Ala Phe Thr Gln Ser Ser Asn Leu Thr Lys His Lys Lys Ile His Thr
65              70              75              80
Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Thr Gln
      85              90              95
Ser Ser Asn Leu Thr Lys His Lys Lys Ile His
      100              105

```

<210> 48  
 <211> 107  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetically generated peptide

```

<400> 48
Phe Gln Cys Lys Thr Cys Gln Arg Lys Phe Ser Arg Ser Asp His Leu
 1              5              10              15
Lys Thr His Thr Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Asp
      20              25              30
His Cys Gly Lys Ser Phe Ser Gln Ser Ser His Leu Asn Val His Lys
      35              40              45
Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys His Asp Cys Gly Lys
      50              55              60
Ser Phe Arg Gln Ser Thr His Leu Thr Arg His Arg Arg Ile His Thr
65              70              75              80
Gly Glu Lys Pro Tyr Lys Cys Pro Asp Cys Gly Lys Ser Phe Ser Gln
      85              90              95
Ser Ser Ser Leu Ile Arg His Gln Arg Thr His
      100              105

```

<210> 49  
 <211> 107  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetically generated peptide

```

<400> 49
Tyr Arg Cys Glu Glu Cys Gly Lys Ala Phe Arg Trp Pro Ser Asn Leu
 1              5              10              15
Thr Arg His Lys Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Asp
      20              25              30
His Cys Gly Lys Ser Phe Ser Gln Ser Ser His Leu Asn Val His Lys
      35              40              45
Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Asp His Cys Gly Lys
      50              55              60
Ala Phe Ser Val Ser Ser Asn Leu Asn Val His Arg Arg Ile His Thr
65              70              75              80
Gly Glu Lys Pro Tyr Glu Cys Asp His Cys Gly Lys Ser Phe Ser Gln

```

85 90 95  
 Ser Ser His Leu Asn Val His Lys Arg Thr His  
 100 105

<210> 50  
 <211> 107  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetically generated peptide

<400> 50  
 Tyr Glu Cys His Asp Cys Gly Lys Ser Phe Arg Gln Ser Thr His Leu  
 1 5 10 15  
 Thr Arg His Arg Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Met  
 20 25 30  
 Glu Cys Gly Lys Ala Phe Asn Arg Arg Ser His Leu Thr Arg His Gln  
 35 40 45  
 Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys His Asp Cys Gly Lys  
 50 55 60  
 Ser Phe Arg Gln Ser Thr His Leu Thr Arg His Arg Arg Ile His Thr  
 65 70 75 80  
 Gly Glu Lys Pro Tyr Glu Cys His Asp Cys Gly Lys Ser Phe Arg Gln  
 85 90 95  
 Ser Thr His Leu Thr Arg His Arg Arg Ile His  
 100 105

<210> 51  
 <211> 109  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetically generated peptide

<400> 51  
 Phe Met Cys Thr Trp Ser Tyr Cys Gly Lys Arg Phe Thr Asp Arg Ser  
 1 5 10 15  
 Ala Leu Ala Arg His Lys Arg Thr His Thr Gly Glu Lys Pro Phe Gln  
 20 25 30  
 Cys Lys Thr Cys Gln Arg Lys Phe Ser Arg Ser Asp His Leu Lys Thr  
 35 40 45  
 His Thr Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Asp His Cys  
 50 55 60  
 Gly Lys Ser Phe Ser Gln Ser Ser His Leu Asn Val His Lys Arg Thr  
 65 70 75 80  
 His Thr Gly Glu Lys Pro Tyr Glu Cys His Asp Cys Gly Lys Ser Phe  
 85 90 95  
 Arg Gln Ser Thr His Leu Thr Arg His Arg Arg Ile His  
 100 105

<210> 52  
 <211> 107  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetically generated peptide

<400> 52  
 Tyr Glu Cys His Asp Cys Gly Lys Ser Phe Arg Gln Ser Thr His Leu  
 1 5 10 15  
 Thr Gln His Arg Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Met  
 20 25 30  
 Glu Cys Gly Lys Ala Phe Asn Arg Arg Ser His Leu Thr Arg His Gln  
 35 40 45  
 Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys His Asp Cys Gly Lys  
 50 55 60  
 Ser Phe Arg Gln Ser Thr His Leu Thr Arg His Arg Arg Ile His Thr  
 65 70 75 80  
 Gly Glu Lys Pro Tyr Glu Cys His Asp Cys Gly Lys Ser Phe Arg Gln  
 85 90 95  
 Ser Thr His Leu Thr Arg His Arg Arg Ile His  
 100 105

<210> 53  
 <211> 107  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetically generated peptide

<400> 53  
 Tyr Glu Cys Asp His Cys Gly Lys Ser Phe Ser Gln Ser Ser His Leu  
 1 5 10 15  
 Asn Val His Lys Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Asp  
 20 25 30  
 His Cys Gly Lys Ala Phe Ser Val Ser Ser Asn Leu Asn Val His Arg  
 35 40 45  
 Arg Ile His Thr Gly Glu Lys Pro Phe Glu Cys Lys Asp Cys Gly Lys  
 50 55 60  
 Ala Phe Ile Gln Lys Ser Asn Leu Ile Arg His Gln Arg Thr His Thr  
 65 70 75 80  
 Gly Glu Lys Pro Tyr Lys Cys Lys Gln Cys Gly Lys Ala Phe Gly Cys  
 85 90 95  
 Pro Ser Asn Leu Arg Arg His Gly Arg Thr His  
 100 105

<210> 54  
 <211> 107  
 <212> PRT  
 <213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetically generated peptide

&lt;400&gt; 54

```

Tyr Glu Cys Asp His Cys Gly Lys Ala Phe Ser Val Ser Ser Asn Leu
 1             5             10             15
Asn Val His Arg Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys His
      20             25             30
Asp Cys Gly Lys Ser Phe Arg Gln Ser Thr His Leu Thr Arg His Arg
      35             40             45
Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Pro Asp Cys Gly Lys
      50             55             60
Ser Phe Ser Gln Ser Ser Ser Leu Ile Arg His Gln Arg Thr His Thr
65             70             75             80
Gly Glu Lys Pro Phe Gln Cys Lys Thr Cys Gln Arg Lys Phe Ser Arg
      85             90             95
Ser Asp His Leu Lys Thr His Thr Arg Thr His
      100             105

```

&lt;210&gt; 55

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetically generated peptide

&lt;400&gt; 55

```

Phe Gln Cys Lys Thr Cys Gln Arg Lys Phe Ser Arg Ser Asp His Leu
 1             5             10             15
Lys Thr His Thr Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Asp
      20             25             30
His Cys Gly Lys Ser Phe Ser Gln Ser Ser His Leu Asn Val His Lys
      35             40             45
Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys His Asp Cys Gly Lys
      50             55             60
Ser Phe Arg Gln Ser Thr His Leu Thr Arg His Arg Arg Ile His Thr
65             70             75             80
Gly Glu Lys Pro Phe Glu Cys Lys Asp Cys Gly Lys Ala Phe Ile Gln
      85             90             95
Lys Ser Asn Leu Ile Arg His Gln Arg Thr His
      100             105

```

&lt;210&gt; 56

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetically generated peptide

&lt;400&gt; 56

```

Phe Met Cys Thr Trp Ser Tyr Cys Gly Lys Arg Phe Thr Asp Arg Ser
 1             5             10             15
Ala Leu Ala Arg His Lys Arg Thr His Thr Gly Glu Lys Pro Phe Gln
          20             25             30
Cys Lys Thr Cys Gln Arg Lys Phe Ser Arg Ser Asp His Leu Lys Thr
          35             40             45
His Thr Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys
          50             55             60
Gly Lys Ala Phe Thr Gln Ser Ser Asn Leu Thr Lys His Lys Lys Ile
65             70             75             80
His Thr Gly Glu Lys Pro Tyr Glu Cys His Asp Cys Gly Lys Ser Phe
          85             90             95
Arg Gln Ser Thr His Leu Thr Arg His Arg Arg Ile His
          100             105

```

&lt;210&gt; 57

&lt;211&gt; 13

&lt;212&gt; PRT

&lt;213&gt; Simian parainfluenza virus 5

&lt;400&gt; 57

```

Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser
 1             5             10

```

&lt;210&gt; 58

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetically generated peptide

&lt;400&gt; 58

```

Glu Arg Pro Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg Phe Ser
 1             5             10             15
Arg Ser Asp Glu Leu Thr Arg His Ile Arg Ile His Thr Gly Gln Lys
          20             25             30
Pro Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Arg Ser Asp His
          35             40             45
Leu Thr Thr His Ile Arg Thr His Thr Gly Glu Lys Pro Phe Ala Cys
          50             55             60
Asp Ile Cys Gly Arg Lys Phe Ala Arg Ser Asp Glu Arg Lys Arg His
65             70             75             80
Thr Lys Ile His Leu Arg Gln Lys Asp
          85

```

&lt;210&gt; 59

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence



## <221> VARIANT

## <221> VARIANT

## <221> VARIANT

<400> 59

<400> 60

<400> 61

<400> 62

Tyr Ser Cys Gly Ile Cys Gly Lys Ser Phe Ser Asp Ser Ser Ala Lys  
1 5 10 15  
Arg Arg His Cys Ile Leu His

20

&lt;210&gt; 63

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 63

Tyr Thr Cys Ser Asp Cys Gly Lys Ala Phe Arg Asp Lys Ser Cys Leu  
1 5 10 15

Asn Arg His Arg Arg Thr His  
20

&lt;210&gt; 64

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 64

Tyr Lys Cys Lys Glu Cys Gly Lys Ala Phe Asn His Ser Ser Asn Phe  
1 5 10 15

Asn Lys His His Arg Ile His  
20

&lt;210&gt; 65

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 65

Phe Lys Cys Pro Val Cys Gly Lys Ala Phe Arg His Ser Ser Ser Leu  
1 5 10 15

Val Arg His Gln Arg Thr His  
20

&lt;210&gt; 66

&lt;211&gt; 24

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 66

Tyr Arg Cys Lys Tyr Cys Asp Arg Ser Phe Ser Ile Ser Ser Asn Leu  
1 5 10 15

Gln Arg His Val Arg Asn Ile His  
20

&lt;210&gt; 67

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 67

Tyr Glu Cys Asp His Cys Gly Lys Ala Phe Ser Ile Gly Ser Asn Leu  
1 5 10 15  
Asn Val His Arg Arg Ile His  
20

<210> 68  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 68  
Tyr Gly Cys His Leu Cys Gly Lys Ala Phe Ser Lys Ser Ser Asn Leu  
1 5 10 15  
Arg Arg His Glu Met Ile His  
20

<210> 69  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 69  
Tyr Lys Cys Lys Glu Cys Gly Gln Ala Phe Arg Gln Arg Ala His Leu  
1 5 10 15  
Ile Arg His His Lys Leu His  
20

<210> 70  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 70  
Tyr Lys Cys His Gln Cys Gly Lys Ala Phe Ile Gln Ser Phe Asn Leu  
1 5 10 15  
Arg Arg His Glu Arg Thr His  
20

<210> 71  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 71  
Phe Gln Cys Asn Gln Cys Gly Ala Ser Phe Thr Gln Lys Gly Asn Leu  
1 5 10 15  
Leu Arg His Ile Lys Leu His  
20

<210> 72  
<211> 23  
<212> PRT



<210> 77  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 77  
Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Arg Gln Ser Ser His Leu  
1 5 10 15  
Thr Thr His Lys Ile Ile His  
20

<210> 78  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 78  
Tyr Glu Cys Asp His Cys Gly Lys Ser Phe Ser Gln Ser Ser His Leu  
1 5 10 15  
Asn Val His Lys Arg Thr His  
20

<210> 79  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 79  
Tyr Met Cys Ser Glu Cys Gly Arg Gly Phe Ser Gln Lys Ser Asn Leu  
1 5 10 15  
Ile Ile His Gln Arg Thr His  
20

<210> 80  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 80  
Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Thr Gln Ser Ser Asn Leu  
1 5 10 15  
Thr Lys His Lys Lys Ile His  
20

<210> 81  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 81  
Phe Glu Cys Lys Asp Cys Gly Lys Ala Phe Ile Gln Lys Ser Asn Leu  
1 5 10 15

Ile Arg His Gln Arg Thr His  
20

<210> 82  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 82  
Tyr Val Cys Arg Glu Cys Arg Arg Gly Phe Ser Gln Lys Ser Asn Leu  
1 5 10 15  
Ile Arg His Gln Arg Thr His  
20

<210> 83  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 83  
Tyr Glu Cys Glu Lys Cys Gly Lys Ala Phe Asn Gln Ser Ser Asn Leu  
1 5 10 15  
Thr Arg His Lys Lys Ser His  
20

<210> 84  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 84  
Tyr Glu Cys Asn Thr Cys Arg Lys Thr Phe Ser Gln Lys Ser Asn Leu  
1 5 10 15  
Ile Val His Gln Arg Thr His  
20

<210> 85  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 85  
Tyr Val Cys Ser Lys Cys Gly Lys Ala Phe Thr Gln Ser Ser Asn Leu  
1 5 10 15  
Thr Val His Gln Lys Ile His  
20

<210> 86  
<211> 23  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 86

Tyr Lys Cys Asp Glu Cys Gly Lys Asn Phe Thr Gln Ser Ser Asn Leu  
1 5 10 15  
Ile Val His Lys Arg Ile His  
20

&lt;210&gt; 87

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 87

Tyr Glu Cys Asp Val Cys Gly Lys Thr Phe Thr Gln Lys Ser Asn Leu  
1 5 10 15  
Gly Val His Gln Arg Thr His  
20

&lt;210&gt; 88

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 88

Tyr Glu Cys Val Gln Cys Gly Lys Gly Phe Thr Gln Ser Ser Asn Leu  
1 5 10 15  
Ile Thr His Gln Arg Val His  
20

&lt;210&gt; 89

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 89

Tyr Lys Cys Pro Asp Cys Gly Lys Ser Phe Ser Gln Ser Ser Ser Leu  
1 5 10 15  
Ile Arg His Gln Arg Thr His  
20

&lt;210&gt; 90

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 90

Tyr Glu Cys Gln Asp Cys Gly Arg Ala Phe Asn Gln Asn Ser Ser Leu  
1 5 10 15  
Gly Arg His Lys Arg Thr His  
20

&lt;210&gt; 91

&lt;211&gt; 23

<212> PRT

<213> Homo sapiens

<400> 91

Tyr Glu Cys Asn Glu Cys Gly Lys Phe Phe Ser Gln Ser Ser Ser Leu  
1 5 10 15  
Ile Arg His Arg Arg Ser His  
20

<210> 92

<211> 23

<212> PRT

<213> Homo sapiens

<400> 92

Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Asn Gln Ser Ser Thr Leu  
1 5 10 15  
Thr Arg His Lys Ile Val His  
20

<210> 93

<211> 23

<212> PRT

<213> Homo sapiens

<400> 93

Tyr Glu Cys Asn Glu Cys Gly Lys Ala Phe Ala Gln Asn Ser Thr Leu  
1 5 10 15  
Arg Val His Gln Arg Ile His  
20

<210> 94

<211> 23

<212> PRT

<213> Homo sapiens

<400> 94

Tyr Glu Cys His Asp Cys Gly Lys Ser Phe Arg Gln Ser Thr His Leu  
1 5 10 15  
Thr Gln His Arg Arg Ile His  
20

<210> 95

<211> 23

<212> PRT

<213> Homo sapiens

<400> 95

Tyr Glu Cys His Asp Cys Gly Lys Ser Phe Arg Gln Ser Thr His Leu  
1 5 10 15  
Thr Arg His Arg Arg Ile His  
20



<210> 96  
<211> 22  
<212> PRT  
<213> Homo sapiens

<400> 96  
His Lys Cys Leu Glu Cys Gly Lys Cys Phe Ser Gln Asn Thr His Leu  
1 5 10 15  
Thr Arg His Gln Arg Thr  
20

<210> 97  
<211> 25  
<212> PRT  
<213> Homo sapiens

<400> 97  
Tyr Val Cys Asp Val Glu Gly Cys Thr Trp Lys Phe Ala Arg Ser Asp  
1 5 10 15  
Glu Leu Asn Arg His Lys Lys Arg His  
20 25

<210> 98  
<211> 25  
<212> PRT  
<213> Homo sapiens

<400> 98  
Tyr His Cys Asp Trp Asp Gly Cys Gly Trp Lys Phe Ala Arg Ser Asp  
1 5 10 15  
Glu Leu Thr Arg His Tyr Arg Lys His  
20 25

<210> 99  
<211> 25  
<212> PRT  
<213> Homo sapiens

<400> 99  
Tyr Arg Cys Ser Trp Glu Gly Cys Glu Trp Arg Phe Ala Arg Ser Asp  
1 5 10 15  
Glu Leu Thr Arg His Phe Arg Lys His  
20 25

<210> 100  
<211> 25  
<212> PRT  
<213> Homo sapiens

<400> 100  
Phe Ser Cys Ser Trp Lys Gly Cys Glu Arg Arg Phe Ala Arg Ser Asp

1	5	10	15
Glu	Leu	Ser	Arg
	His	Arg	Arg
		Thr	His
	20	25	

<210> 101  
 <211> 25  
 <212> PRT  
 <213> Homo sapiens

<400> 101	
Phe	Ala
Cys	Ser
Trp	Gln
Asp	Cys
Asn	Lys
Lys	Phe
Ala	Arg
Ser	Asp
1	5
10	15
Glu	Leu
Ala	Arg
His	Tyr
Arg	Thr
His	
20	25

<210> 102  
 <211> 25  
 <212> PRT  
 <213> Homo sapiens

<400> 102	
Tyr	His
Cys	Asn
Trp	Asp
Gly	Cys
Gly	Trp
Lys	Phe
Ala	Arg
Ser	Asp
1	5
10	15
Glu	Leu
Thr	Arg
His	Tyr
Arg	Lys
His	
20	25

<210> 103  
 <211> 24  
 <212> PRT  
 <213> Homo sapiens

<400> 103	
Phe	Leu
Cys	Gln
Tyr	Cys
Ala	Gln
Arg	Phe
Gly	Arg
Lys	Asp
His	Leu
1	5
10	15
Thr	Arg
His	Met
Lys	Lys
Ser	His
20	

<210> 104  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 104	
Phe	Gln
Cys	Lys
Thr	Cys
Gln	Arg
Lys	Phe
Ser	Arg
Ser	Asp
His	Leu
1	5
10	15
Lys	Thr
His	Thr
Arg	Thr
His	
20	

<210> 105  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 105

Phe Ala Cys Glu Val Cys Gly Val Arg Phe Thr Arg Asn Asp Lys Leu  
1 5 10 15  
Lys Ile His Met Arg Lys His  
20

&lt;210&gt; 106

&lt;211&gt; 25

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 106

Tyr Val Cys Asp Val Glu Gly Cys Thr Trp Lys Phe Ala Arg Ser Asp  
1 5 10 15  
Lys Leu Asn Arg His Lys Lys Arg His  
20 25

&lt;210&gt; 107

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 107

Tyr Lys Cys Met Glu Cys Gly Lys Ala Phe Asn Arg Arg Ser His Leu  
1 5 10 15  
Thr Arg His Gln Arg Ile His  
20

&lt;210&gt; 108

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 108

Tyr Ile Cys Arg Lys Cys Gly Arg Gly Phe Ser Arg Lys Ser Asn Leu  
1 5 10 15  
Ile Arg His Gln Arg Thr His  
20

&lt;210&gt; 109

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 109

Tyr Leu Cys Ser Glu Cys Asp Lys Cys Phe Ser Arg Ser Thr Asn Leu  
1 5 10 15  
Ile Arg His Arg Arg Thr His  
20

&lt;210&gt; 110

<211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 110  
 Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe Ser Ser Gly Ser Asn Phe  
 1 5 10 15  
 Thr Arg His Gln Arg Ile His  
 20

<210> 111  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 111  
 Tyr Glu Cys Asp His Cys Gly Lys Ala Phe Ser Val Ser Ser Asn Leu  
 1 5 10 15  
 Asn Val His Arg Arg Ile His  
 20

<210> 112  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 112  
 Tyr Thr Cys Lys Gln Cys Gly Lys Ala Phe Ser Val Ser Ser Ser Leu  
 1 5 10 15  
 Arg Arg His Glu Thr Thr His  
 20

<210> 113  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 113  
 Tyr Glu Cys Asn Tyr Cys Gly Lys Thr Phe Ser Val Ser Ser Thr Leu  
 1 5 10 15  
 Ile Arg His Gln Arg Ile His  
 20

<210> 114  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 114  
 Tyr Arg Cys Glu Glu Cys Gly Lys Ala Phe Arg Trp Pro Ser Asn Leu  
 1 5 10 15  
 Thr Arg His Lys Arg Ile His

20

&lt;210&gt; 115

&lt;211&gt; 6

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Naturally occurring linker peptide

&lt;221&gt; VARIANT

&lt;222&gt; 3

&lt;223&gt; Xaa = Glu or Gln

&lt;221&gt; VARIANT

&lt;222&gt; 4

&lt;223&gt; Xaa = Lys or Arg

&lt;221&gt; VARIANT

&lt;222&gt; 6

&lt;223&gt; Xaa = Tyr or Phe

&lt;400&gt; 115

Thr Gly Xaa Xaa Pro Xaa

1

5

&lt;210&gt; 116

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetically generated peptide

&lt;221&gt; VARIANT

&lt;222&gt; 1, 13

&lt;223&gt; Xaa = phenylalanine or tyrosine

&lt;221&gt; VARIANT

&lt;222&gt; 2, 4-8, 10-14, 16, 20, 23-27

&lt;223&gt; Xaa = any amino acid

&lt;221&gt; VARIANT

&lt;222&gt; 19

&lt;223&gt; Xaa = a hydrophobic residue

&lt;400&gt; 116

Xaa Xaa Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Cys Xaa Ser Asn

1

5

10

15

Xaa Xaa Arg His Xaa Xaa Xaa Xaa His

20

25

<210> 117  
 <211> 267  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetically generated oligonucleotide

<400> 117  
 atcgataagc taattctcac tcattaggca cccaggcgt tacactttat gcttcgggt 60  
 cgtataatgt gtggaattgt gagcggataa caatttcaca caggaaacag cgtccatggg 120  
 taagcctatc cctaaccctc tcctcgggtc cgattctaca caagctatgg gtgctcctcc 180  
 aaaaaagaag agaaaggtag ctggatccac tagtaacggc cgccagtgtg ctggaattct 240  
 gcagatatcc atcacactgg cggccgc 267

<210> 118  
 <211> 25  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> mutated sequence

<400> 118  
 Phe Met Cys Thr Trp Ser Tyr Cys Gly Lys Arg Phe Thr Asp Arg Ser  
 1 5 10 15  
 Ala Leu Ala Arg His Lys Arg Thr His  
 20 25

<210> 119  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 119  
 Tyr Lys Cys Lys Gln Cys Gly Lys Ala Phe Gly Cys Pro Ser Asn Leu  
 1 5 10 15  
 Arg Arg His Gly Arg Thr His  
 20

<210> 120  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 120  
 Tyr Thr Cys Ser Asp Cys Gly Lys Ala Phe Arg Asp Lys Ser Cys Leu  
 1 5 10 15  
 Asn Arg His Arg Arg Thr His  
 20

<210> 121

<211> 25  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> mutated sequence

<400> 121  
Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg Phe Ser Asp Ser Ser  
1 5 10 15  
Asn Leu Thr Arg His Ile Arg Ile His  
20 25

<210> 122  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 122  
Phe Lys Cys Pro Val Cys Gly Lys Ala Phe Arg His Ser Ser Ser Leu  
1 5 10 15  
Val Arg His Gln Arg Thr His  
20

<210> 123  
<211> 24  
<212> PRT  
<213> Homo sapiens

<400> 123  
Tyr Arg Cys Lys Tyr Cys Asp Arg Ser Phe Ser Ile Ser Ser Asn Leu  
1 5 10 15  
Gln Arg His Val Arg Asn Ile His  
20

<210> 124  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 124  
Tyr Lys Cys His Gln Cys Gly Lys Ala Phe Ile Gln Ser Phe Asn Leu  
1 5 10 15  
Arg Arg His Glu Arg Thr His  
20

<210> 125  
<211> 23  
<212> PRT  
<213> Drosophila

<400> 125

Tyr Thr Cys Ser Tyr Cys Gly Lys Ser Phe Thr Gln Ser Asn Thr Leu  
1 5 10 15  
Lys Gln His Thr Arg Ile His  
20

<210> 126  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 126  
Tyr Glu Cys Asp His Cys Gly Lys Ser Phe Ser Gln Ser Ser His Leu  
1 5 10 15  
Asn Val His Lys Arg Thr His  
20

<210> 127  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 127  
Tyr Met Cys Ser Glu Cys Gly Arg Gly Phe Ser Gln Lys Ser Asn Leu  
1 5 10 15  
Ile Ile His Gln Arg Thr His  
20

<210> 128  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 128  
Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Thr Gln Ser Ser Asn Leu  
1 5 10 15  
Thr Lys His Lys Lys Ile His  
20

<210> 129  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 129  
Phe Glu Cys Lys Asp Cys Gly Lys Ala Phe Ile Gln Lys Ser Asn Leu  
1 5 10 15  
Ile Arg His Gln Arg Thr His  
20

<210> 130  
<211> 23  
<212> PRT



Phe Gln Cys Lys Thr Cys Gln Arg Lys Phe Ser Arg Ser Asp His Leu  
1 5 10 15  
Lys Thr His Thr Arg Thr His  
20

<210> 135  
<211> 25  
<212> PRT  
<213> Homo sapiens

<400> 135  
Tyr Val Cys Asp Val Glu Gly Cys Thr Trp Lys Phe Ala Arg Ser Asp  
1 5 10 15  
Lys Leu Asn Arg His Lys Lys Arg His  
20 25

<210> 136  
<211> 23  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> mutated sequence

<400> 136  
Phe Ala Cys Pro Glu Cys Pro Lys Arg Phe Met Arg Ser Asp Asn Leu  
1 5 10 15  
Thr Gln His Ile Lys Thr His  
20

<210> 137  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 137  
Tyr Lys Cys Met Glu Cys Gly Lys Ala Phe Asn Arg Arg Ser His Leu  
1 5 10 15  
Thr Arg His Gln Arg Ile His  
20

<210> 138  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 138  
Tyr Ile Cys Arg Lys Cys Gly Arg Gly Phe Ser Arg Lys Ser Asn Leu  
1 5 10 15  
Ile Arg His Gln Arg Thr His  
20

<210> 139  
<211> 23  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 139

Tyr Glu Cys Asp His Cys Gly Lys Ala Phe Ser Val Ser Ser Asn Leu  
1 5 10 15  
Asn Val His Arg Arg Ile His  
20

&lt;210&gt; 140

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 140

Tyr Thr Cys Lys Gln Cys Gly Lys Ala Phe Ser Val Ser Ser Ser Leu  
1 5 10 15  
Arg Arg His Glu Thr Thr His  
20

&lt;210&gt; 141

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 141

Tyr Glu Cys Asn Tyr Cys Gly Lys Thr Phe Ser Val Ser Ser Thr Leu  
1 5 10 15  
Ile Arg His Gln Arg Ile His  
20

&lt;210&gt; 142

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 142

Tyr Arg Cys Glu Glu Cys Gly Lys Ala Phe Arg Trp Pro Ser Asn Leu  
1 5 10 15  
Thr Arg His Lys Arg Ile His  
20

&lt;210&gt; 143

&lt;211&gt; 12

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; putative target sequence

&lt;400&gt; 143

daadaaaath ga

12

&lt;210&gt; 144

&lt;211&gt; 13

<212> DNA  
<213> Artificial Sequence

<220>  
<223> putative target sequence

<221> misc\_feature  
<222> 10  
<223> n = a,t,c or g

<400> 144  
gyagrahgan ggk 13

<210> 145  
<211> 12  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> putative target sequence

<400> 145  
hgaaathgag gt 12

<210> 146  
<211> 12  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> putative target sequence

<400> 146  
gragragggg ra 12

<210> 147  
<211> 12  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> putative target sequence

<221> misc\_feature  
<222> 7  
<223> n = a,t,c or g

<400> 147  
grahganggg tc 12

<210> 148  
<211> 12

<212> DNA  
<213> Artificial Sequence

<220>  
<223> putative target sequence

<400> 148  
gragragggh ga 12

<210> 149  
<211> 12  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> putative target sequence

<400> 149  
gavgaaaath ga 12

<210> 150  
<211> 12  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> putative target sequence

<221> misc\_feature  
<222> 1  
<223> n = a,t,c or g

<400> 150  
ngggyagraa at 12

<210> 151  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> putative target sequence

<221> misc\_feature  
<222> 10  
<223> n = a,t,c or g

<400> 151  
gaagrahgan ggek 13

<210> 152  
<211> 12

<212> DNA  
 <213> Artificial Sequence

<220>  
 <223> putative target sequence

<221> misc\_feature  
 <222> 7  
 <223> n = a,t,c or g

<400> 152  
 gradaanggg tc

12

<210> 153  
 <211> 12  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> binding sequence

<221> misc\_feature  
 <222> 10  
 <223> n = a, t, c, or g

<400> 153  
 gaagrahgan gg

12

<210> 154  
 <211> 189  
 <212> PRT  
 <213> Escherichia coli

<400> 154  
 Met Lys Arg Leu Ile Val Gly Ile Ser Gly Ala Ser Gly Ala Ile Tyr  
 1 5 10 15  
 Gly Val Arg Leu Leu Gln Val Leu Arg Asp Val Thr Asp Ile Glu Thr  
 20 25 30  
 His Leu Val Met Ser Gln Ala Ala Arg Gln Thr Leu Ser Leu Glu Thr  
 35 40 45  
 Asp Phe Ser Leu Arg Glu Val Gln Ala Leu Ala Asp Val Thr His Asp  
 50 55 60  
 Ala Arg Asp Ile Ala Ala Ser Ile Ser Ser Gly Ser Phe Gln Thr Leu  
 65 70 75 80  
 Gly Met Val Ile Leu Pro Cys Ser Ile Lys Thr Leu Ser Gly Ile Val  
 85 90 95  
 His Ser Tyr Thr Asp Gly Leu Leu Thr Arg Ala Ala Asp Val Val Leu  
 100 105 110  
 Lys Glu Arg Arg Pro Leu Val Leu Cys Val Arg Glu Thr Pro Leu His  
 115 120 125  
 Leu Gly His Leu Arg Leu Met Thr Gln Ala Ala Glu Ile Gly Ala Val  
 130 135 140

Ile Met Pro Pro Val Pro Ala Phe Tyr His Arg Pro Gln Ser Leu Asp  
145 150 155 160  
Asp Val Ile Asn Gln Thr Val Asn Arg Val Leu Asp Gln Phe Ala Ile  
165 170 175  
Thr Leu Pro Glu Asp Leu Phe Ala Arg Trp Gln Gly Ala  
180 185

<210> 155  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 155  
ctggaaagaa ccggaagaga tgctg 25

<210> 156  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 156  
tgaaacgact cattgtaggc atcag 25

<210> 157  
<211> 12  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> target sequence

<221> misc\_feature  
<222> 7  
<223> n = a,t,c or g

<400> 157  
gctgranggg ah 12